

**ENTOMOBALIA, NEW GENUS, THE FIRST MEMBER OF NYCTELIINI  
(COLEOPTERA: TENEBRIONIDAE) FROM BRAZIL**

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*Abstract.*—*Entomobalia*, new genus, (Pimeliinae: Nycteliini) is described from north-eastern Brazil and is the first genus of the tribe Nycteliini recorded for that country. This new genus is created on the basis of two previously described species: *Asida platynotos* Perty and *Asida picta* Perty (new combinations in *Entomobalia*), formerly placed in the genus *Scotinus* Kirby (Pimeliinae: Asidini). Sixteen different character states among the species of *Scotinus* and the two species assigned to *Entomobalia* are discussed, 11 of which are shared by *Entomobalia* with all or some genera of Nycteliini and not with the remaining species of *Scotinus*. A description for the genus and redescriptions of the two species are provided. Main diagnostic characters for *Entomobalia* are in sexual dimorphism and male and female genitalia. Habitus photographs, illustrations of external morphology, internal skeletal anatomy, genitalic features, and a distribution map are included.

*Key Words:* Tenebrionidae, Pimeliinae, Asidini, Nycteliini, *Entomobalia*, South America, Brazil

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Nycteliini is an endemic Neotropical tribe of Pimeliinae (Doyen 1993), with 285 species distributed in Argentina, Chile, Bolivia, Peru, Paraguay, and Uruguay (Fig. 1) (Flores 1997). The species of Nycteliini are currently arranged in 11 genera, the nine recognized in previous revisions: *Gyriosomus* Guérin-Méneville, *Pilobalia* Burmeister, *Entomoderes* Solier, *Nyctelia* Latreille, *Epipedonota* Solier, *Psectrascelis* Solier, *Scelidospecta* Kulzer, *Auladera* Solier, *Mitragenus* Solier (Kulzer 1954, Flores 1997), the recently described genus *Patagonogenius* (Flores 1999), and the restored genus *Callyntra* Solier (Flores and Vidal 2000).

Our examination of a single specimen collected in Brazil by W. Mann from the Field Museum of Natural History (Chicago,

USA) led us to think we had discovered a new species of Nycteliini. More recently we discovered a long series of 80 specimens of this species and another series of 25 specimens of another smaller species, both collected in northeastern Brazil by W. Mann, deposited in the National Museum of Natural History, Smithsonian Institution, (Washington, DC). One specimen of the longer series had been determined by Kulzer as *Scotinus platynotos* (Perty). After requesting a loan of all the species of *Scotinus* present in The Natural History Museum (London, UK), we confirmed that both species had already been described by Perty (1830), the larger as *Asida platynotos* and the smaller as *Asida picta*. Finally, study of the types of Perty from the Zoologische Staatssammlung, München (Germany) con-

firmed the identity of both series of these species.

When Perty (1830) described these two species, he placed them in the genus *Asida* Latreille (Asidini). Laporte (1840) considered that they should be included in the genus *Scotinus* Kirby (Asidini). *Scotinus picta* had not been mentioned in the literature for 160 years, but in 1935, Blair expressed the opinion that *S. platynotos* "is a somewhat aberrant *Pilobalia*". Gebien (1910) listed this species under *Scotinus*, but later he listed it under the nycteliine genus *Pilobalia* (Gebien 1937). This means that both authors believed this species belongs to the tribe Nycteliini rather than the Asidini. However, Kulzer (1954) still accepted this species as a member of the genus *Scotinus*. Through a detailed discussion of the characters, we demonstrate that *Scotinus platynotos* and *S. picta* are not congeneric with the remaining species of *Scotinus*, that they are not Asidini, that they share most of these characters with all or some genera of Nycteliini, and that they deserve recognition as a separate genus, which we have named *Entomobalia*. This new genus exhibits a mosaic of characters present in other genera of Nycteliini, especially *Pilobalia* and *Entomoderes*. The inclusion of these two species in any other known genus of Nycteliini would imply a completely different concept and redefinition of that genus. In addition, the male and female genitalia show unique apomorphies.

Species of Nycteliini inhabit arid and semiarid environments, mainly in the biogeographical provinces Chaco, Monte, Pampa, Central and Arid Puna, Prepuna, Coquimbo, Santiago, Payunia, Western, Central and Fueguian Patagonia, and San Jorge Gulf (Morrone 2001). The discovery of these two species from northeastern Brazil, at least 3,000 km from the Chaco, the closest point of distribution of a genus of Nycteliini (*Entomoderes*), was unexpected. Thus the range of the tribe is greatly expanded to the Caatinga biogeographical province (Morrone 2001). It is possible that

other species of Nycteliini may be found in the Cerrado biogeographical province, which lies between Caatinga and Chaco (Fig. 1).

The objectives of this study are to describe this new genus of Nycteliini, re-describe the two species assigned to the new genus, and compare the distinctive character states of the species of *Scotinus* (Asidini) with the two species assigned to *Entomobalia* (Nycteliini), which had previously been placed in *Scotinus*.

Specimens were obtained from the following institutions: The Natural History Museum, London, UK (BMNH), Field Museum of Natural History, Chicago, IL, USA (FMNH), National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM), and Zoologische Staatssammlung, München, Germany (ZSMC). Thanks to the kind generosity of the USNM, we distributed some specimens of both species in the following institutions: California Academy of Sciences, San Francisco, CA, USA (CASC), Field Museum of Natural History, Chicago, IL, USA (FMNH), Instituto Argentino de Investigaciones de las Zonas Áridas, Mendoza, Argentina (IADIZA), Museo Argentino de Ciencias Naturales Bernardino Rivadavia, Buenos Aires, Argentina (MACN), Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil (MZSP), and The Ohio State University, Columbus, OH, USA (OSUC).

Body length was measured dorsally, along the midline, from anterior margin of labrum to elytral apex. For paraproct/coxite length (P/C) we used the ratio proposed by Doyen (1993). For basal lamina of the tegmen/lateral styles length (B/E) and median lobe/tegmen length (L/T) we used the ratios proposed by Flores (1996). Drawings were made with a camera lucida adapted to a stereoscopic microscope.

#### TAXONOMIC PLACEMENT OF *ENTOMOBALIA*

The two species that we have assigned to the new genus *Entomobalia* (Nycteliini)



Fig. 1. Known distribution of the genera of Nycteliini (lined area). Black square: distribution records for *Entomobalia platynota*; black circle: distribution records for *E. picta*. 1 and 2: Caatinga and Cerrado biogeographical provinces (*sensu* Morrone 2001).

had previously been placed in the genus *Scotinus*, which belongs to the Asidini, a large tribe of Pimeliinae with more than 1,000 species distributed in North and South America, Africa south of Sahara, Madagascar, and the Mediterranean area (Koch 1955). The species of *Scotinus* are endemic to Brazil (Gebien 1937). We have studied the following characters within the species of *Scotinus*, some of which have been used to study the relationships be-

tween the tribes of Pimeliinae (Doyen 1993) and to define the tribe Nycteliini (Flores 1997), finding that *Scotinus platynotos* and *S. picta* share all of these characters with all or some genera of Nycteliini and not with the remaining species of *Scotinus*. The species of *Scotinus* examined from BMNH are the following (T includes type specimens): *S. crenicollis* Kirby (T) (type species), *S. crucifer* Eschscholtz, *S. propius* Wilke, *S. quadricollis* Eschscholtz,

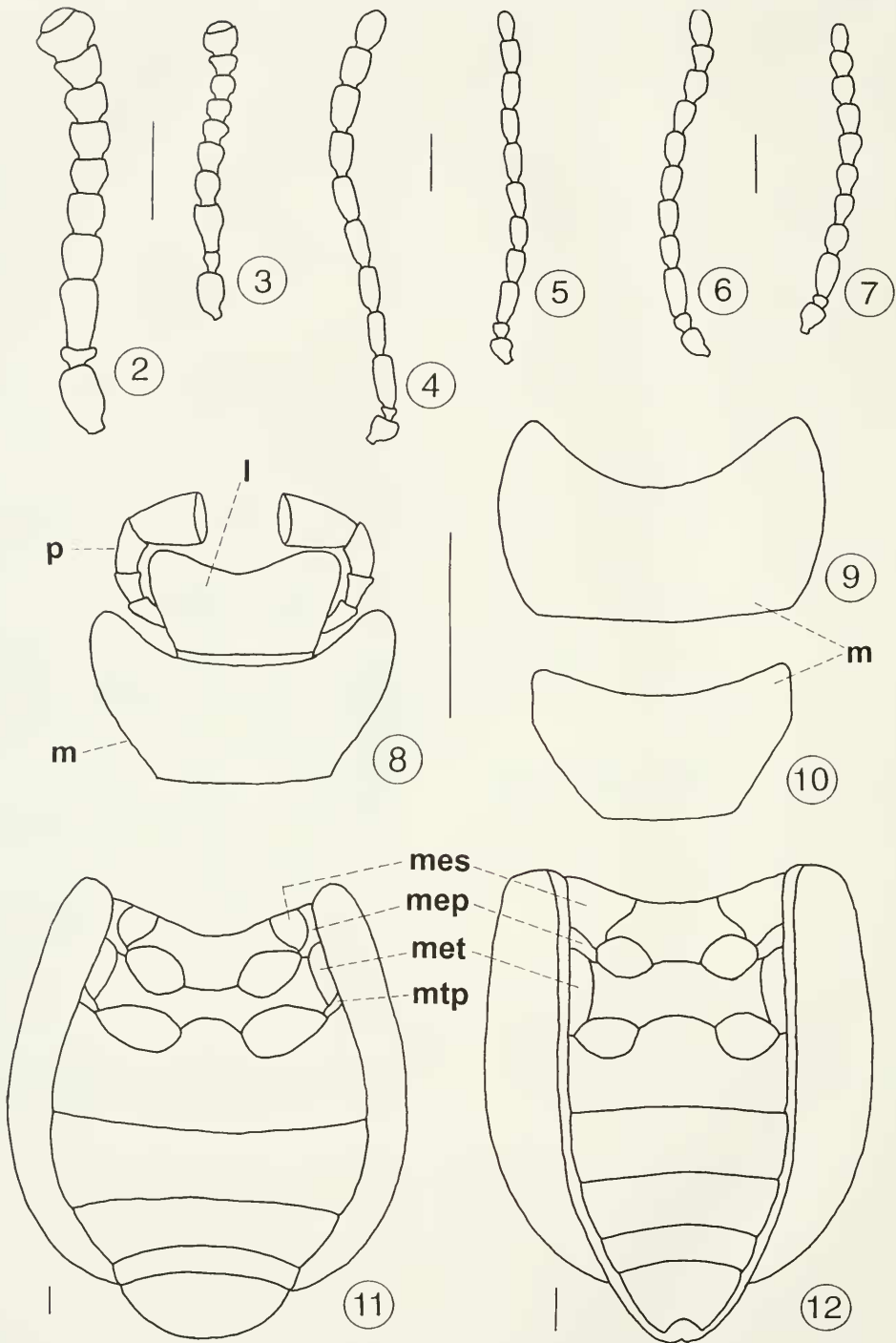
*S. quadricollis incisus* Wilke (T), *S. tuberculatus* Eschscholtz, *S. tuberculatus dispar* Wilke (T), *S. chapadensis* Wilke (T), and *S. bajulus* Wilke (T).

1. Size of antennomere 11: Very small, even rudimentary in *Scotinus* (Figs. 2–3); in *Entomobalia* and *Nycteliini* well developed, sometimes equal to or longer than antennomere 10 (Figs. 4–7).
2. Subgenal process (defined by Doyen 1993: 454): Subadjacent with mentum in *Scotinus* (Solier 1836: plate XIII, Figs. 1–2, Doyen 1993: Figs. 22–25); in *Entomobalia* and *Nycteliini* it is remote from mentum (Doyen 1993: Fig. 21).
3. Position of ligula: Nearly concealed beneath mentum in *Scotinus* (Solier 1836: plate XIII, Figs. 1–2); in *Entomobalia* it is entirely exposed anterad of mentum (Fig. 8), with the articulating membrane visible. Within *Nycteliini*, this character state is shared with *Gyriosomus*, *Pilobalia* and *Entomoderes*.
4. Relative size of ligula: Less than half the size of mentum in *Scotinus* (Solier 1836: plate XIII, Figs. 1–2); in *Entomobalia* it is larger than half of mentum (Fig. 8). Within *Nycteliini*, this character state is shared with *Gyriosomus*, *Pilobalia* and *Entomoderes*.
5. Shape of mentum: Cordiform in *Scotinus*, with anterior margin twice as long as posterior margin (Solier 1836: plate XIII, Figs. 1–2). Subtrapezoidal in *Entomobalia*, with anterior margin 1.5 times the length of posterior margin (Fig. 8). Within *Nycteliini*, this character state is shared only with *Pilobalia* (Fig. 10).
6. Mesepisternum: Small, not reaching the mesocoxal cavities in *Scotinus* (Fig. 11); in *Entomobalia* and *Nycteliini* it is large, reaching the mesocoxal cavities and closing laterally (Fig. 12).
7. Mesepimeron: Long, reaching the base of elytral epipleuron in *Scotinus* (Fig. 11); in *Entomobalia* and *Nycteliini* it is short, not reaching the base of elytral epipleuron (Fig. 12).

8. Metepimeron: Transverse in *Scotinus*, widely separating the metacoxal cavities from the elytral epipleuron (Fig. 11); in *Entomobalia* and *Nycteliini* it is not evident, since the metacoxal cavities are very close to the elytral epipleuron (Fig. 12).
9. Lateral closure of metacoxal cavities: Closed laterally by metepimeron and first visible abdominal sternum in *Scotinus* (Fig. 11); closed laterally by metepisternum in *Entomobalia* (Fig. 12). Within *Nycteliini*, this character state is shared with *Gyriosomus*, *Pilobalia* and *Entomoderes*.
10. Distance between meso- and metacoxae: Does not exceed half the metacoxal length in *Scotinus* (Fig. 11); in *Entomobalia* and *Nycteliini* it exceeds half the metacoxal length (Fig. 12).
11. Abdominal margin of elytral epipleuron: Curved where it contacts meso- and metathorax in *Scotinus* (Fig. 11); in *Entomobalia* and *Nycteliini* it is straight where it contacts meso- and metathorax (Fig. 12).

Additional character states which differ in *Scotinus* and *Entomobalia*:

1. Antennal length: Short in *Scotinus*, not reaching the middle of the lateral margin of pronotum; longer in *Entomobalia*, extending beyond posterior margin of pronotum.
2. Shape and width of antennomere 10: Oval, wider than long in *Scotinus*, wider than more proximal antennomeres (Figs. 2–3); subrectangular, longer than wide in *Entomobalia*, no wider than more proximal antennomeres (Figs. 4–5).
3. Ventral femoral surface: Covered by sparse setae in *Scotinus*; densely setose on proximal  $\frac{3}{4}$  in *Entomobalia*.
4. Elytral epipleuron: Not evident in *Scotinus* (Fig. 11); evident throughout in *Entomobalia* (Fig. 12). In addition, in *Entomobalia* the elytral epipleuron is equal in width throughout (Fig. 12); within *Nycteliini* this character state is



Figs. 2-12. External structure. 2-7, Antennae in dorsal view. 2, *Scotinus crenicollis*. 3, *S. crucifer*. 4, *Entomobalia platynota*. 5, *E. picta*. 6, *Pilobalia decorata* (Erichson). 7, *P. oblonga* (Blanchard). 8-10, Labium and mentum in ventral view. 8, Labium of *Entomobalia platynota*. 9, Mentum of *Entomoderes satanicus* Waterhouse. 10, Mentum of *Pilobalia decorata*. 11-12, Mesothorax, metathorax and abdomen in ventral view. 11, *Scotinus crenicollis*. 12, *Entomobalia picta* (female). Abbreviations: l, ligula, m, mentum, p, labial palpus, mes, mesepisternum, mep, mesepimeron, met, metepisternum, mtp, metepimeron. Scale bar = 1 mm.

shared with *Gyriosomus*, *Pilobalia* and *Entomoderes*.

5. Sexual dimorphism: Species of *Scotinus* do not exhibit sexual dimorphism; species of *Entomobalia* exhibit four characters different in male and female (see below).

In his cladistic analysis of Pimeliinae, Doyen (1993) found that all genera of Asidini (from South African, Madagascan, Mediterranean, North and South American regions) constitute a monophyletic group defined by six synapomorphies, five of which are not present in *Entomobalia*: bridge of tentorium absent or incomplete, antennae with ten segments plus the reduced eleventh antennomere, abdominal laterotergites extremely small, apicodorsal lobe of proctiger ending at coxite base, and baculus of proctiger extending proximad, equal to baculus of paraproct. Furthermore Doyen (1993) pointed out that the first two are synapomorphies unique to Asidini within the subfamily Pimeliinae.

Within Pimeliinae, *Entomobalia* must be placed within the Asidine clade (Doyen 1993) by having multiple, long, slender spermathecal tubes which open as a fascicle into the base of the accessory gland duct or into the vagina near the duct (Figs. 17–18). Within the Asidine clade of Doyen (1993), *Entomobalia* belongs to the subclade of South American tribes Nycteliini, Physogasterini and Praocini by having metendosternite arms fused with mesocoxal inflexions. *Entomobalia* is placed in the tribe Nycteliini according to the definition of that tribe by Flores (1996, 1997) and the following change in that tribal concept should be mentioned: in the female genitalia of *Entomobalia* the basal lobe of the coxite is separated vertically from apical lobe (Figs. 17–18), while in the remaining genera of Nycteliini it is separated horizontally from apical lobe (Flores 1996).

The most recent key provided for the genera of Nycteliini is that by Flores

(1997), which is modified at couplet 8 to separate out *Pilobalia* and *Entomobalia*:

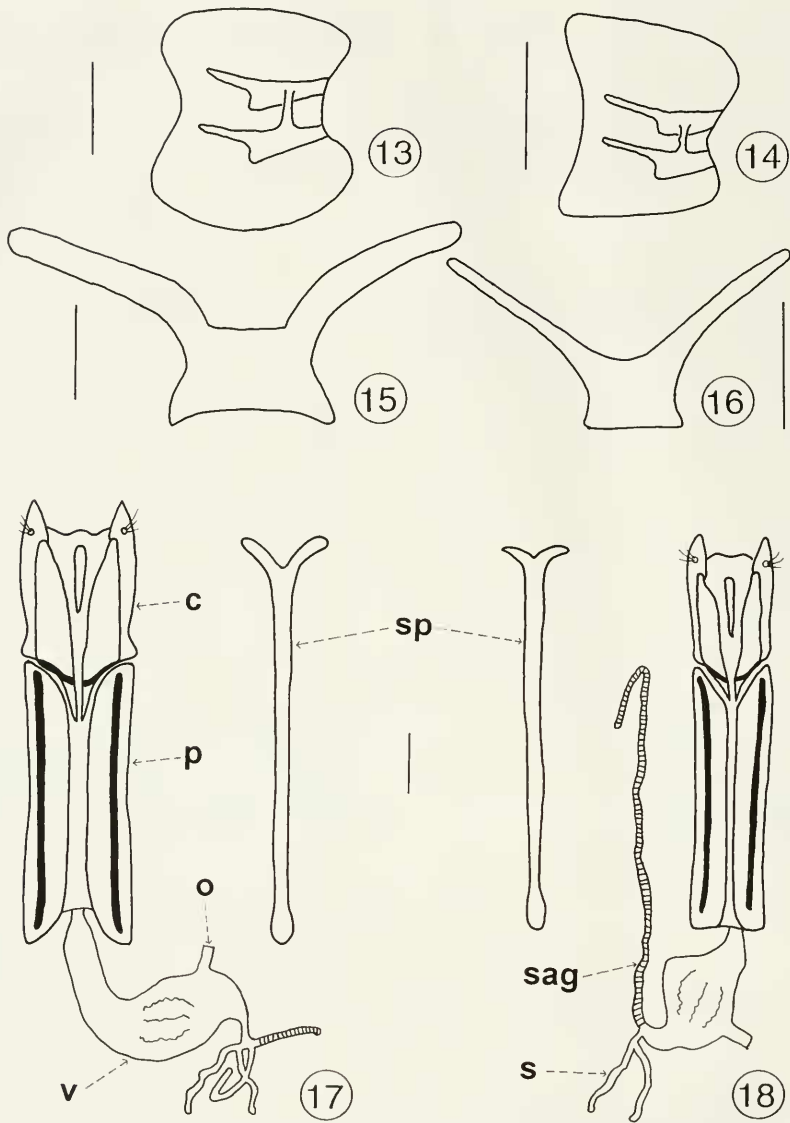
- 8. Pronotum with a short central-posterior carina and two longer longitudinal carinae, lateral margin with lobe (Flores 1997: Fig. 25); femora with umbilicate setae; mentum transverse (Fig. 9) . . . . . *Entomoderes* Solier
- Pronotum lacking carinae, lateral margin concave, lacking lobe; femora with simple setae; mentum subtrapezoidal (Figs. 8, 10) . . . . . 8a
- 8a. Mentum impunctate or with very small punctures; antennomere 10 subspherical or pyriform (Figs. 6–7); male with protibiae straight and not expanded apically (Flores 1997: Fig. 26) . . . . . *Pilobalia* Burmeister
- Mentum with large punctures; antennomere 10 subrectangular (Figs. 4–5); male with protibiae curved inward and expanded apically (Figs. 19–20) . . . . . *Entomobalia*, new genus

***Entomobalia* Flores and Triplehorn, new genus**

Type species.—*Asida platynotos* Perty, present designation.

Diagnosis.—Distinguished from other Nycteliini by the following combination of characters: ligula sclerotized, ventrally exposed, equal to half mentum area; labial palps inserted on posterior half of ligula; mentum subtrapezoidal; pronotum smooth, without punctures, striae or carinae, lateral margin concave, posterior angles acute, overlapping elytral humeri, epipleuron equal in width throughout; metacoxal cavities closed laterally by metepisternum; ventral surface of femora densely setose; median lobe of aedeagus subapically expanded and strongly sclerotized on distal third; sexual dimorphism: male with protibia curved inward and expanded apically, inner surfaces of tibiae densely setose on distal half, and central area of metasternum with setae; female with protibia straight and not expanded apically, inner surfaces of tibiae with normal setae, and central area of metasternum glabrous and shiny.

Description.—Length, 12.1–19.9 mm; width, 6.4–11.3 mm. Body and legs brown to black, with antenna and maxillary palp brown. Pronotum and elytron with two

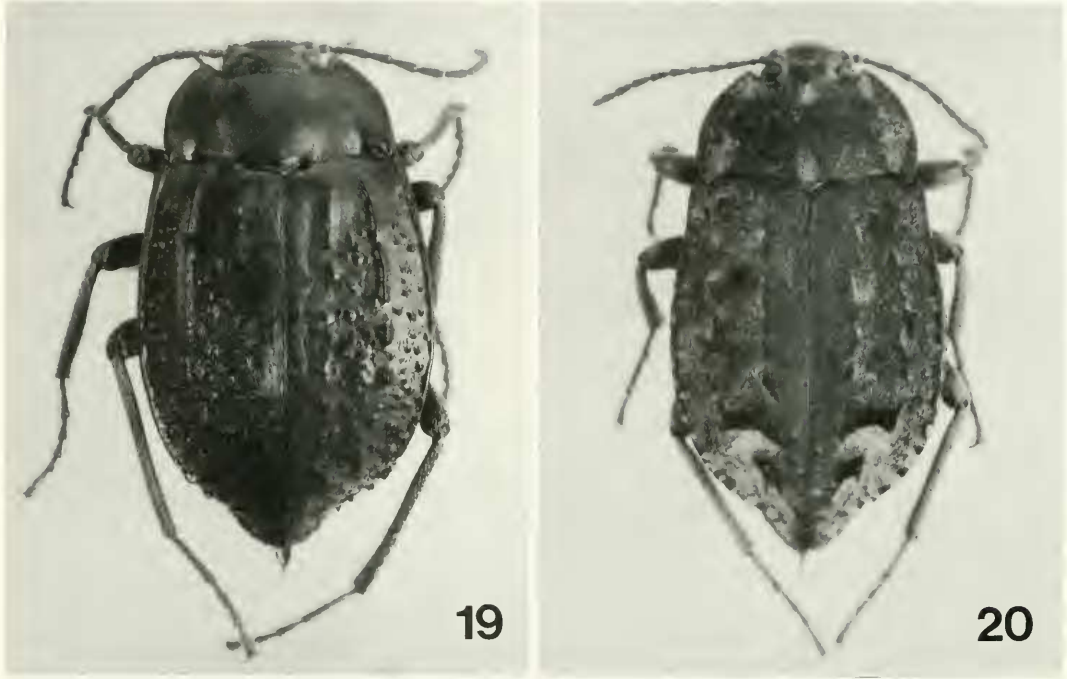


Figs. 13-18. Internal skeletal anatomy and female genitalia of *Entomobalia* spp. 13-14, Tentoria. 13, *Entomobalia platynota*. 14, *E. picta*. 15-16, Metendosternites in posterior view. 15, *Entomobalia platynota*. 16, *E. picta*. 17-18, Ovipositor (ventral view), spiculum and internal female reproductive tract. 17, *Entomobalia platynota*. 18, *E. picta*. Abbreviations: c, coxite, o, oviduct, p, paraproct, s, spermatheca, sag, spermathecal accessory gland, sp, spiculum, v, vagina. Scale bar = 1 mm.

kinds of short setae, one stout, dark brown, and other finer, golden or light brown.

**Head:** Epipharynx with anterior margin entirely concealed beneath labrum. Labrum, clypeus and frons with abundant short, golden setae. Clypeus with anterior margin concave. Clypeal suture defined by a deep depression with setae at antennal insertion

level. Frons without longitudinal or lateral grooves. Eye reniform. Antenna long, extending beyond posterior margin of pronotum; antennomeres subrectangular, with two different kinds of pubescence: one short and abundant on entire surface, and second consisting of long, scattered setae; unique apical semicircular tomentose sen-



Figs. 19, 20. Habitus in dorsal view. 19, *Entomobalia platynota*, male. 20, *E. picta*, male.

sory patch on antennomere 9. Ligula sclerotized, articulated with mentum by a narrow membrane and exposed ventrally, equal to half mentum area (Fig. 8); labial palpi inserted on posterior half of ligula (Fig. 8). Ligula and mentum with setae arising from large punctures. Mentum subtrapezoidal (Fig. 8). Submentum posteriorly continuous with gula. Tentorium with medial straight bridge (Figs. 13–14).

*Thorax:* Pronotum short (length: pronotum/elytron  $\leq 0.33$ ), pubescent and smooth, without punctures, striae or carinae; disc convex; anterior margin slender and central area not broadened; anterior angles rounded; lateral margin simple, slender, concave, widest behind mid point; posterior angles acute, overlapping elytral humeri; posterior margin biconcave, as wide as base of elytra. Proepisternum with or without grooves and with sparse not umbilicate setae. Prosternum arched, not extended over mesosternum. Mesosternum inclined forward, separated from prosternum. Scutellum visible. Meso- and metepisternum without grooves.

*Elytron:* Dorsal surface, pseudopleuron and epipleuron impunctate; with one or two carinae, space between external carinae and lateral margin without grooves; lateral margin straight and sharp, epipleuron equal in width throughout, texture similar to that of elytra.

*Legs:* Procoxal cavity closed posteriorly. Metacoxae separated by one metacoxal width, enclosed laterally by metepisternum. Ventral surfaces of trochanters pubescent, brushlike. Ventral surfaces of femora densely setose on proximal  $\frac{3}{4}$ . Ventral surfaces of tarsi bearing abundant decumbent setae.

*Sexual dimorphism:* Male with protibia curved inward and expanded apically, inner surfaces of tibiae densely setose on distal half, and central area of metasternum with setae. Female with protibia straight and not expanded apically, inner surfaces of tibiae with normal setae, and central area of metasternum glabrous and shiny.

*Internal skeletal anatomy:* Mesendosternite with a long and slender dorsal arm, longer than horizontal arm. Metendosternite



(Figs. 15–16) with arms long, extending beyond mesocoxal inflexions about half distance to tergum, stem equal to metacoxal width, width of stem exceeding length, and stem narrow at middle. Elytral-abdominal fusion accomplished by a ridge in the elytral epipleuron which interlocks in a longitudinal groove of abdominal sterna.

*Male genitalia:* Rods of sternum IX close at basal third, distance between them not exceeding width of aedeagus. Dorsal membrane of proctiger concave, with two sclerotized areas. Basal lamina of tegmen long ( $B/E > 1.00$ ). Lateral styles of tegmen distally close, with apex straight and long setae on ventral surface; ventral proximal margin convex in ventral view, projecting dorsally over median lobe. Median lobe long ( $L/T > 1.00$ ), sheath-shaped, one third the width of lateral styles of tegmen, expanded subapically and strongly sclerotized on distal third, with apex acute and straight.

*Female genitalia* (Figs. 17–18): Spiculum with arms "V"-shaped. Paraprocts moderate ( $1.2 \leq P/C \leq 2.0$ ), glabrous. Coxites with setae, basal lobe of coxite extended over paraproct and separated vertically from apical lobe, baculi of coxite inclined  $45^\circ$ ; midventral sclerite distally broadened. Proctigeral baculus equal to length of paraproct baculus. Vagina saccate; spermathecal tubes shorter than vagina length, all similar in width and branching pattern; spermathecal accessory gland longer than vagina, with duct annulate and thick.

*Etymology.*—The name of the genus refers to the similarity to the Nycteliine genera *Entomoderes* and *Pilobalia*. Gender feminine.

*Distribution and habitat.*—Brazil: States of Ceará, R o Grande do Norte, Pernambuco and Bah a, in the Caatinga biogeographical province (Morrone 2001) (Fig. 1). W. Mann, the collector of the large series of both species in Baixa Verde, R o Grande do Norte, stated that "the country was arid, with much scrub and cacti, but little life in evidence" (Mann 1948: 91).

#### KEY TO THE SPECIES OF *ENTOMOBALIA*

1. Pronotum with lateral margin reflexed; elytron with lateral margin single and protuberances irregularly and sparsely distributed on dorsal surface; length usually greater than 15 mm (Fig. 19) . . . . . *E. platynota* (Perty)
- Pronotum with lateral margin not reflexed; elytron with lateral margin double and lacking protuberances; length usually less than 13 mm (Fig. 20) . . . . . *E. picta* (Perty)

#### *Entomobalia platynota* (Perty), new combination

(Figs. 1, 4, 8, 13, 15, 17, 19, 21, 22)

*Asida platynotos* Perty 1830: 56, plate 12, fig. 2.

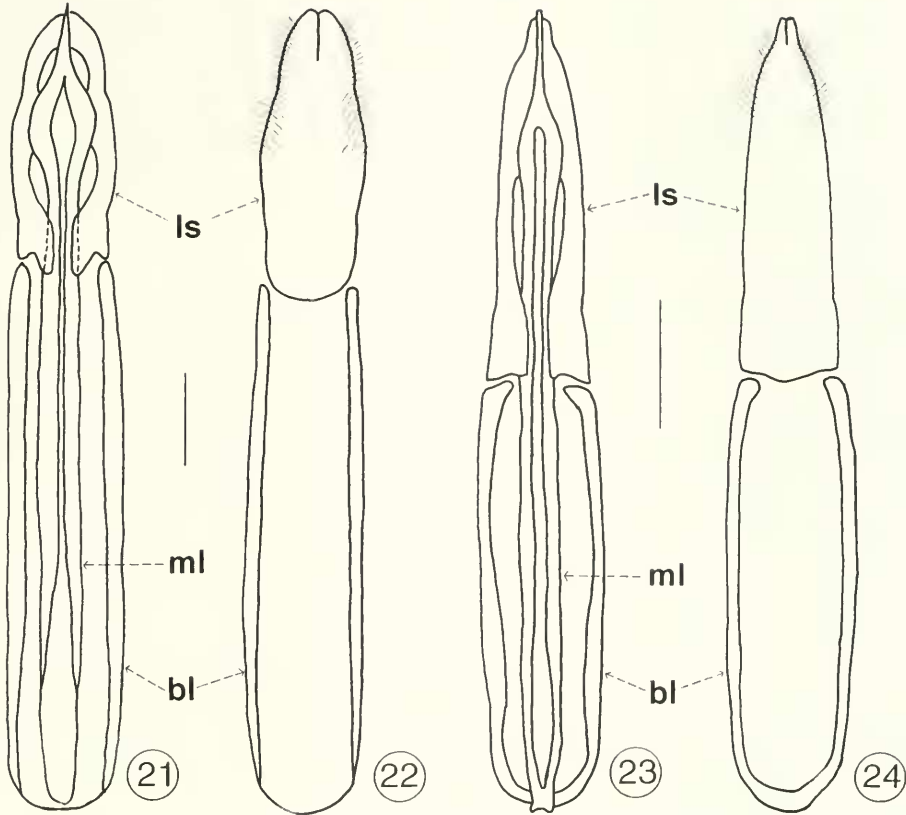
*Scotinus platynotos*: Laporte 1840: 208; Lacordaire 1859: 165.

*Scotinus platynotus*: Gemminger and Harold 1870: 1880 (cat.); Gebien 1910: 139 (cat.).

*Pilobalia platynota*: Blair 1935: 104; Gebien 1937: 753 (cat.); Blackwelder 1945: 519 (cat.); Kulzer 1954: 254 (rev.); Flores 1997: 16 (list).

*Scotinus platynotos*: Kulzer 1954: 265.

*Redescription.*—Length, 15.0–19.9 mm; width, 8.0–11.3 mm. Body and femora brown to black, with antenna, tibia and tarsi brown. Stout dark brown setae and golden or light-brown finer setae uniformly and sparsely distributed on pronotum and dorsal surface of elytron, both forming velvet-like patches only on posterior third of elytron. Antenna long, extending three antennomeres beyond posterior margin of pronotum. Pronotum with lateral margin reflexed. Male metasternum with tuft of setae on central area, brush-like. Metepisternum with not umbilicate setae. Elytron with lateral margin single and protuberances irregularly and sparsely distributed on dorsal surface, with one feebly raised complete or incomplete carina, close to lateral margin (Fig. 19); in some specimens with a secondary carina close to suture, consisting of aligned protuberances. Male with protibia expanded apically, but not excavated. Last abdominal segment truncate in males and females. In addition to three characters of sexual di-



Figs. 21–24. Male genitalia of *Entomobalia* spp. in dorsal and ventral views. 21, 22, *Entomobalia platynota*. 23, 24, *E. picta*. Abbreviations: bl, basal lamina of tegmen, ls, lateral styles of tegmen, ml, median lobe. Scale bar = 1 mm.

morphism at generic level, first abdominal sternum with a tuft of brush-like setae on central area in males and glabrous and shiny in females.

Male genitalia.—Lateral styles of tegmen with apex wide, widest at mid point, with long setae on distal half of ventral surface (Fig. 21). Median lobe with apical aperture large, strongly expanded subapically (Fig. 22).

Specimens examined.—Lectotype: [Type] [Brasilia/*Scotinus/platynotos*/Perty] (ZSMC). To fix the current interpretation of this name and to ensure stability, we are hereby designating this lectotype: [Lectotypus/*Asida platynotos*/Perty, 1830/Des. G. Flores-/C. Triplehorn 2001]. Non-type specimens. BRAZIL: Rio Grande do Norte. Baixa Verde, W. Mann, 75 [55 (USNM), 3

(CASC), 4 (FMNH), 7 (IADIZA), 2 (MACN), 2 (MZSP), 2 (OSUC)]; Ceará-Mirim, W. Mann, 1 (USNM). Pernambuco. Ouricuri, II-1982, J.C.C. Guix (ex *Bufo* stomach), 3 (OSUC). Bahia. Near Queimadas, 11-VI-1915, P.G. Russell, 2 (USNM); S. Salvador, 1918, 2 (USNM); Barra, 1 (BMNH); without more precise data: 2 (BMNH).

*Entomobalia picta* (Perty),  
**new combination**

(Figs. 1, 5, 12, 14, 16, 18, 20, 23, 24)

*Asida picta* Perty 1830: 56, plate 12, fig. 3.

*Scotinus picta*: Laporte 1840: 208; Lacordaire 1859: 165.

*Scotinus pictus*: Gemminger and Harold 1870: 1880 (cat.); Gebien 1910: 139

(cat.), 1937: 743 (cat.); Blackwelder 1945: 517 (cat.).

Redescription.—Length, 12.1–15.9 mm; width, 6.4–7.6 mm. Body and femora brown to black, with antenna, tibia and tarsi brown. Stout dark brown setae uniformly and sparsely distributed on pronotum and dorsal surface of elytron, grouped only on outer third of pronotum and elytron. Finer, golden or light brown setae grouped forming velvet-like patches on pronotum and dorsal surface of elytron. Antenna long, extending two antennomeres beyond posterior margin of pronotum. Pronotum with lateral margin not reflexed. Male metasternum with setae on central area, not forming a brushlike tuft. Metepisternum with umbilicate setae. Elytron with lateral margin double and without protuberances, with two low carinae, equidistant between suture and lateral margin (Fig. 20), visible only for the different pattern of setae. Male with protibia expanded apically and excavated inward. First abdominal sternum with short setae in male and female. In addition to three characters of sexual dimorphism at generic level, last abdominal segment truncate in males and emarginate in females (Fig. 12).

Male genitalia.—Lateral styles of tegmen with apex narrow, widest at base, with long setae on distal quarter of ventral surface (Fig. 23). Median lobe with apical aperture small, moderately expanded subapically (Fig. 24).

Specimens examined.—Lectotype and three paralectotypes without label data (ZSMC). One paralectotype: [Brasilia/*Scotinus/pictus*/Perty] (ZSMC). To fix the current interpretation of this name and to ensure stability, we are hereby designating this lectotype and four paralectotypes: [Lectotypus/*Asida picta*/Perty, 1830/Des. G. Flores-/C. Triplehorn 2001], the same for the four paralectotypes. Non-type specimens. BRAZIL: Río Grande do Norte, Baixa Verde, W. Mann, 24 [13 (USNM), 2 (CASC), 2 (FMNH), 2 (IADIZA), 1

(MACN), 2 (MZSP), 2 (OSUC)]; Natal, W. Mann, 1 (USNM). Ceará. F. da Rocha coll., 13-III-1940, 1 (USNM); F. da Rocha coll., 2 (USNM). Pernambuco. Pesqueira, V-1935, L. Castro, 4 (USNM). Bahía. Near Queimadas, 10-VI-1915, P.G. Russell, 2 (USNM); without more precise data: 1 (ZSMC).

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